

CLAIMS

1. A filter retrieval system for retrieving a previously implanted medical filter, comprising:

a flexible shaft defining a longitudinal axis having a proximal and a distal end; the shaft having an opening positioned a distance from the shaft distal end; the shaft defining a first and second internal space positioned proximally and distally of the opening;

a handle affixed to the shaft near the shaft proximal end;

an actuator coupled with the handle;

a retrieval element coupled with the actuator; the retrieval element being longitudinally movable among a range of positions, including the position of the shaft opening and the positions of the proximal and distal internal spaces;

such that moving the actuator to a desired position causes the retrieval element to move to a corresponding position;

such that when the retrieval element is in an initial position, the retrieval element is located within one of the first and second internal spaces;

such that when the actuator is moved to a ready position, the retrieval element protrudes from the shaft opening;

such that the retrieval element can be maneuvered to engage a portion of a filter, and then the actuator can be moved to a first or second capture position which pulls the filter through the opening into a selected one of the first and second internal spaces.

2. The filter retrieval system in accordance with claim 1, wherein the longitudinal axis and the shaft follow a curved path.

3. The filter retrieval system in accordance with claim 1, further comprising a guidewire lumen defined by the shaft and a distal guidewire port near the shaft distal end, for slidably receiving a guidewire.
4. The filter retrieval system in accordance with claim 1, wherein a distal portion of the shaft has a pre-selected shape.
5. The filter retrieval system in accordance with claim 1, further comprising one or more marker bands visible on a fluoroscope.
6. A filter retrieval system for retrieving a previously implanted medical filter, comprising:
 - a flexible shaft defining a longitudinal axis having a proximal and a distal end; the shaft having an opening positioned a distance from the shaft distal end; the shaft defining a first and second internal space positioned proximally and distally of the opening;
 - a handle affixed to the shaft near the shaft proximal end;
 - an actuator coupled with the handle;
 - a main wire loop coupled with the actuator, and having a snare; the snare being longitudinally movable among a range of positions, including the position of the shaft opening and the positions of the proximal and distal internal spaces;
 - such that moving the actuator to a desired position causes the main wire loop to move the snare to a corresponding position;
 - such that when the snare is in an initial position, the snare is located within one of the first and second internal spaces;

such that when the actuator is moved to a ready position, the snare protrudes from the shaft opening;

such that the snare can be maneuvered to engage a portion of a filter, and then the actuator can be moved to a first or second capture position which pulls the filter through the opening into a selected one of the first and second internal spaces.